

DEPARTMENT OF ENERGY
FY 2001 CONGRESSIONAL BUDGET REQUEST
CLEAN COAL TECHNOLOGY

PROPOSED APPROPRIATION LANGUAGE
(RESCISSION AND DEFERRAL)

Of the funds made available under this heading for obligation in prior years, [\$156,000,000] *\$105,000,000 is hereby rescinded; and an additional \$221,000,000* shall not be available until October 1, [2000] *2001: Provided,* That funds made available in previous Appropriations Acts shall *hereafter* be available for any ongoing project regardless of the separate request for proposal under which the project was selected.

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PROGRAM FUNDING PROFILE

<u>Sub-program</u>	<u>FY 1999 Enacted</u>	<u>FY 2000 Enacted</u>	<u>FY 2001 Base</u>	<u>FY 2001 Request</u>	<u>Program Change Request vs. Base</u>	
					<u>Dollar</u>	<u>Percent</u>
Clean Coal Technology						
Deferral						
Operating Expenses	\$-40,000	\$-156,000	\$-146,038	\$-221,000	\$-74,962	-51%
Rescission						
Operating Expenses	<u>\$0</u>	<u>\$-38</u>	<u>\$0</u>	<u>\$-105,000</u>	<u>\$-105,000</u>	<u>100%</u>
Previously Deferred Budget Authority						
Operating Expenses	<u>\$0</u>	<u>\$10,000</u>	<u>\$0</u>	<u>\$171,000</u>	<u>\$171,000</u>	<u>100%</u>
Total	<u><u>\$-40,000</u></u>	<u><u>\$-146,038</u></u>	<u><u>\$-146,038</u></u>	<u><u>\$-155,000</u></u>	<u><u>\$-8,962</u></u>	<u><u>-6%</u></u>
Summary						
Operating Expenses	\$-40,000	\$-146,038	\$-146,038	\$-155,000	\$-8,962	-6%
Construction	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>0%</u>
Total Program	<u><u>\$-40,000</u></u>	<u><u>\$-146,038</u></u>	<u><u>\$-146,038</u></u>	<u><u>\$-155,000</u></u>	<u><u>\$-8,962</u></u>	<u><u>-6%</u></u>
Staffing (FTEs)						
Headquarters	18	17	17	17		
Field	<u>49</u>	<u>49</u>	<u>49</u>	<u>49</u>		
Total Staffing	<u><u>67</u></u>	<u><u>66</u></u>	<u><u>66</u></u>	<u><u>66</u></u>		

Authorizations:

P.L. 95-91, "Department of Energy Organization Act" (1997)

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CLEAN COAL TECHNOLOGY

CLEAN COAL TECHNOLOGY (CCT)

I. **Mission Supporting Goals and Objectives:**

The CCT Program is a technology development effort jointly funded by government and industry, in which the most promising advanced coal-based technologies are being demonstrated at a scale large enough to generate the data needed for the marketplace to judge their commercial potential. The Program is consistent with and directly supportive of DOE's energy strategy and the implementing legislation in the Energy Policy Act of 1992 (Public Law 102-486). The Program began in 1985 with the objective of accelerating the pace at which advanced coal-based utilization technologies would enter commercial service. Underlying this objective was the recognition that the vast, and relatively inexpensive, U.S. coal reserves represent a critical energy resource which can provide a significant economic advantage to the Nation. However, these benefits can only be realized when coal can be used in ways which are environmentally responsible, and when advanced technology can achieve significantly higher efficiencies than existing commercial technology.

The 40 active projects in the Program have a total cost of \$5,373,905,000, of which DOE has committed \$1,835,233,000. As of December 31, 1999, 21 projects had completed operation and reporting requirements, 11 projects were in operation or were completing reporting requirements, and eight projects were in design or construction. By law, the DOE cost share is restricted to no more than 50% of total project costs. However, the program has achieved significantly greater leverage of the Federal investment with an overall average non-DOE cost share of 66%.

The technologies being demonstrated in the Program are grouped into four primary market applications: (a) Advanced Electric Power Generation Systems, which offer the prospect of much higher efficiency coal-based powerplants to meet the energy demand requirements of the Nation well into the next century; (b) Environmental Control Devices, which offer more attractive ways to reduce emissions from existing powerplants and industrial facilities both domestically and in international markets; (c) Coal Processing for Clean Fuels, which offer coal feedstock conversion to produce a stable fuel of high energy density that can be used to produce steam,

I. **Mission Supporting Goals and Objectives:** CLEAN COAL TECHNOLOGY (Cont'd)

electricity, or be used as a transportation fuel; and (d) Industrial Applications, which offer superior ways to competitively manufacture key commodities such as steel in an environmentally responsive manner.

For FY 1999, P.L. 105-277 deferred \$40,000,000 with \$10,000,000 to be made available in FY 2000, \$15,000,000 in FY 2001, and \$15,000,000 in FY 2002.

For FY 2000, P.L. 106-113 deferred \$156,000,000 from available funds until FY 2001. In addition, \$38,000 was rescinded as part of a general reduction.

For FY 2001, the Department proposes a rescission of \$105,000,000 and an additional \$221,000,000 be deferred until FY 2002.

FY 2001 performance measures include:

- C Continue design for an Advanced Pressurized Circulating Fluidized Bed (APCFB) demonstration project.
- C Continue design of a fixed-bed slagging gasification and fuel cell demonstration project.
- C Complete design and continue construction of Circulating Atmospheric Fluidized Bed demonstration project.

II. A. **Funding Schedule:**

<u>Activity</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>\$Change</u>	<u>%Change</u>
Cooperative Agreements	\$-40,000	\$-146,038	\$-155,000	\$-8,962	-6%
Program Direction	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0%</u>
Total, Clean Coal Technology (CCT)	<u>\$-40,000</u>	<u>\$-146,038</u>	<u>\$-155,000</u>	<u>\$-8,962</u>	<u>-6%</u>

II. B. **Laboratory and Facility Funding Schedule:** CLEAN COAL TECHNOLOGY (Cont'd)

	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>\$Change</u>	<u>%Change</u>
All Other	<u>\$-40,000</u>	<u>\$-146,038</u>	<u>\$-155,000</u>	<u>\$-8,962</u>	<u>-6%</u>
Total, Clean Coal Technology (CCT)	<u><u>\$-40,000</u></u>	<u><u>\$-146,038</u></u>	<u><u>\$-155,000</u></u>	<u><u>\$-8,962</u></u>	<u><u>-6%</u></u>

III. **Performance Summary:**

<u>Activity</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
Cooperative Agreements	<p>Overall Program:</p> <p>For FY 1999, P.L. 105-277 deferred \$40,000,000 until FY 2000 and beyond.</p> <p>At the end of FY 1999, 20 projects were complete and five additional projects had completed operation but not final reporting requirements. Seven projects were in operation and eight projects in design or construction. At the end of FY 1999, two projects had outstanding obligation commitments.</p>	<p>Overall Program:</p> <p>For FY 2000, P.L. 106-113 deferred \$156,000,000 until FY 2001.</p> <p>At the end of FY 2000, 30 projects are expected to be completed. Five projects are expected to be in operation, one project in construction, and four projects in design. At the end of FY 2000, two projects are expected to have outstanding obligation commitments.</p>	<p>Overall Program:</p> <p>For FY 2001, the Department proposes a rescission of \$105,000,000 and an additional \$221,000,000 be deferred until FY 2002.</p> <p>At the end of FY 2001, 32 projects are expected to be completed with one additional project completing final reports. Two projects are expected to be in operation, three projects in construction, and two projects in design. At the end of FY 2001, two projects are expected to have outstanding obligation commitments.</p>

III. **Performance Summary:** CLEAN COAL TECHNOLOGY (Cont'd)

<u>Activity</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
Cooperative Agreements (Cont'd)	<p>Adv. Power Gen. Sys:</p> <p>During FY 1999, McINTOSH 4A, McINTOSH 4B, and JEA continued design activities. The CLEAN ENERGY continued restructuring activities. The COAL DIESEL project continued construction activities. TAMPA, AIDEA, WABASH RIVER, and SIERRA continued operation.</p> <p>Emission Control Systems:</p> <p>During FY 1999, SCS-WF continued operation. NOXSO continued restructuring activities. MICRO REBURN completed operation and began preparing final reports. CHIYODA and PS-COL continued final reporting activities. NYSEG submitted final reports.</p>	<p>Adv. Power Gen. Sys:</p> <p>During FY 2000, McINTOSH 4A and McINTOSH 4B will continue design activities. CLEAN ENERGY will be restructured as the KY PIONEER project and continue design activities. JEA will initiate construction activities. COAL DIESEL will initiate operation. TAMPA will continue operation. SIERRA, AIDEA, and WABASH RIVER will complete operation and reporting requirements.</p> <p>Emission Control Systems:</p> <p>During FY 2000, SCS-WF will continue operation. NOXSO is expected to conclude. CHIYODA, MICRO REBURN, and PS-COL will complete final reporting activities.</p>	<p>Adv. Power Gen. Sys:</p> <p>During FY 2001, McINTOSH 4B will continue design activities. McINTOSH 4A and KY PIONEER (\$60,000,000) are expected to join JEA in the construction phase. TAMPA and COAL DIESEL will continue operation.</p> <p>Emission Control Systems:</p> <p>During FY 2001, SCS-WF will complete operation and reporting requirements.</p>

III. **Performance Summary:** CLEAN COAL TECHNOLOGY (Cont'd)

<u>Activity</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
Cooperative Agreements (Cont'd)	<p>Coal Proc. for Clean Fuels:</p> <p>During FY 1999, LPMEOH and WESTERN continued operation. CUSTOM COALS continued restructuring activities.</p> <p>Industrial Applications:</p> <p>During FY 1999, CPICOR was approved for restructuring and continued design activities. THERMOCHEM completed design and construction activities. BETHLEHEM STEEL completed operation and initiated final reporting activities.</p> <p>Funding Activities:</p> <p>Continued operation of US/China Center for Energy and Environment.</p>	<p>Coal Proc. for Clean Fuels:</p> <p>During FY 2000, WESTERN and LPMEOH will continue operation. CUSTOM COALS will conclude.</p> <p>Industrial Applications:</p> <p>During FY 2000, CPICOR will continue design activities. THERMOCHEM will complete operation and reporting requirements. BETHLEHEM STEEL will complete final reporting activities.</p> <p>Funding Activities:</p> <p>Complete operation of US/China Center for Energy and Environment and transition to private sector funding.</p>	<p>Coal Proc. for Clean Fuels:</p> <p>During FY 2001, LPMEOH will complete operation and WESTERN will complete operation and reporting.</p> <p>Industrial Applications:</p> <p>During FY 2001, CPICOR will continue design activities.</p> <p>Funding Activities:</p> <p>No activity.</p>

III. **Performance Summary:** CLEAN COAL TECHNOLOGY (Cont'd)

<u>Activity</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
Cooperative Agreements (Cont'd)	Total obligations were \$500,000 in FY 1999.	Planned \$500,000 obligations in FY 2000.	Project obligations scheduled for FY 2001 total \$60,000,000.
	\$-40,000	\$-146,038	\$-155,000
Program Direction	Continued to monitor progress on the active projects, including development of independent performance assessments on the projects that completed the operating phase during FY 1999.	Continue to monitor progress on the active projects, including development of independent performance assessments on the projects scheduled to complete the operating phase during FY 2000.	Continue to monitor progress on the active projects, including development of independent performance assessments on the projects scheduled to complete the operating phase during FY 2001.
	Continued to review project status at key decision points to ensure projects were fully satisfying the criteria to proceed to the next major phase of activity.	Continue to review project status at key decision points to ensure projects are fully satisfying the criteria to proceed to the next major phase of activity.	Continue to review project status at key decision points to ensure projects are fully satisfying the criteria to proceed to the next major phase of activity.
	Continued to monitor and evaluate the status of program funding.	Continue to monitor and evaluate the status of program funding.	Continue to monitor and evaluate the status of program funding.

III. **Performance Summary:** CLEAN COAL TECHNOLOGY (Cont'd)

<u>Activity</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
Program Direction (Cont'd)	<p>Maintained a detailed information base on all project activity and status data, updated monthly, and provided key program inputs to the planning, budgeting, and management activities of the Department.</p> <p>Continued to compile, evaluate and model project performance and cost data, and publish results. Continued development of a CCT Reference Database Compendium.</p> <p>Continued technology transfer and outreach activities as the availability of technical and economic performance data increased.</p> <p>Continued technology assessments for SOx and NOx control, advanced power generating systems, coal fuels technology, and industrial applications.</p>	<p>Maintain a detailed information base on all project activity and status data, update monthly, and provide key program inputs to the planning, budgeting, and management activities of the Department.</p> <p>Continue to compile, evaluate and model project performance and cost data, and publish results. Continue development of a CCT Reference Database Compendium.</p> <p>Continue technology transfer and outreach activities as the availability of technical and economic performance data increases.</p> <p>Continue technology assessments for SOx and NOx control, advanced power generating systems, coal fuels technology, and industrial applications.</p>	<p>Maintain a detailed information base on all project activity and status data, update monthly, and provide key program inputs to the planning, budgeting, and management activities of the Department.</p> <p>Continue to compile, evaluate and model project performance and cost data, and publish results. Continue development of a CCT Reference Database Compendium.</p> <p>Continue technology transfer and outreach activities as the availability of technical and economic performance data increases.</p> <p>Continue technology assessments for SOx and NOx control, advanced power generating systems, coal fuels technology, and industrial applications.</p>

III. **Performance Summary:** CLEAN COAL TECHNOLOGY (Cont'd)

<u>Activity</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
Program Direction (Cont'd)	<p>Subject to direction from the Administration and Congress, continued activities to implement Section 1332 of the Energy Policy Act.</p> <p>Continued feasibility studies and project development activities for a China IGCC project.</p> <p>Continue NEPA compliance activities.</p> <p>Provided funding for Working Capital Fund.</p> <p>Funding Activity:</p> <p>Obligated approximately \$14,900,000 to finance activities at HQ and NETL (67 FTEs).</p>	<p>Subject to direction from the Administration and Congress, continue activities to implement Section 1332 of the Energy Policy Act.</p> <p>Complete feasibility studies and project development activities for a China IGCC project.</p> <p>Continue NEPA compliance activities.</p> <p>Provide funding for Working Capital Fund.</p> <p>Funding Activity:</p> <p>Obligate approximately \$14,400,000 to finance activities at HQ and NETL (66 FTEs).</p>	<p>Subject to direction from the Administration and Congress, continue activities to implement Section 1332 of the Energy Policy Act.</p> <p>Continue NEPA compliance activities.</p> <p>Provide funding for Working Capital Fund.</p> <p>Funding Activity:</p> <p>Obligate approximately \$13,920,000 to finance activities at HQ and NETL (66 FTEs).</p>
Clean Coal Technology, Total	\$-40,000	\$-146,038	\$-155,000